

South Branch Quantico Creek Bridge
Prince William Forest Park, on NPS Route
11 spanning the south branch of Quantico Creek
Dumfries Vicinity
Prince William County
Virginia

HAER No. VA-49

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PHOTOGRAPHS
WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
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HISTORIC AMERICAN ENGINEERING RECORD

SOUTH BRANCH QUANTICO CREEK BRIDGE

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Location: Prince William Forest Park on NPS Route
11 spanning South Branch Quantico Creek. Dumfries
vicinity, Prince William County, Virginia.

UTM: 18/294000/4271230
Quad: Quantico, Virginia

Date of Construction: 1939-1940

Engineer: Civilian Conservation Corps

Present Owner: National Capital Park Region
National Park Service

Present Use: Vehicular bridge on primary park road.

Significance: The design and construction of this structure
represent a renewal of interest in rustic forms of
architecture that also influenced the construction of
this bridge. This style highlighted the use of
"native" materials: readily available in the
surroundings and natural to a park's environment.
Much of the National Park Service construction in
parks utilized this style of building. The Civilian
Conservation Corps (CCC) worked extensively in parks
during the 1930s and early 1940s; Prince William
Forest Park being one of the many that the CCC
improved upon.

Historian: Mary Kendall Shipe, 1988

The South Branch Quantico Creek Bridge spans Quantico Creek along NPS Route 11, the main thoroughfare through Prince William Forest Park. The structure's configuration consists of a Pratt pony truss. The construction material of the truss is finished standardized timbers which have been creosoted.¹ The bridge measures sixty-two feet in length. The top chord of the truss rises twelve feet nine inches above the bridge deck; this height decreases to eight feet ten inches at the posts where the next two chords meet. The bottom chords on either side are thirteen feet long and the three middle chords are each twelve feet in length. The center section of the truss has cross-bracing; both diagonal members of the bracing have lengths of seventeen feet seven inches and help the structure support tension loads. The cross-bracing is supported by vertical timbers (four feet by fourteen feet) on either side. These timbers, connected with bolts of malleable iron in ring connections, act in compression. The center cross-bracing is adjoined on either side by a brace connected to another vertical post member which is eight feet ten inches in length. Railings (three inches by eight inches) further strengthen the structure from end to end. The deck of the bridge is supported underneath by timber cross-bracing and is approximately twenty feet wide. The original wood decking has been covered with asphalt. The bridge has concrete abutments on each end.

In the early twentieth century the establishment of recreational camping facilities in the vicinity of large cities offered low-income families a respite from urban life. This idea arose from the promotion of nature as a vacation destination. In 1916, one article reported that "tourists seeking beauty spots are being directed by the government to national forests as vacation grounds."² By 1934, the National Park Service had chosen such a park area for the Washington, D.C. region. The Chopawamsic Recreational Demonstration Area (later renamed Prince William Forest Park) contained approximately 15,000 acres, a typical size for these experimental demonstration areas. The Recreational Demonstration Area (RDA) program employed the use of the Civilian Conservation Corps (CCC) under the Federal Emergency Relief Administration, a program of Franklin D. Roosevelt's administration. The CCC received praise for "endowing them [parks throughout the nation] with fine roads, picturesque paths and bridges...."³

Crucial to the early development of Prince William Forest Park, the CCC gave the park its original plan which it closely resembles today. The plan's primary initial goals included the establishment of camps and the construction

¹ "All timber in bridge to be pressure treated with a 50/50 mix of creosote and petroleum oils..." RG 79, Entry #153, "Truss and Joint Details, Chopawamsic Area; Prince William County, Va.," April 10, 1939.

² Washington Star, July 24, 1916, p. 2.

³ Herman J. Muller, "The Civilian Conservation Corps, 1933-42," Historical Bulletin, March 1950, p. 59.

of a main loop road through the park. The South Branch Quantico Creek Bridge, erected where the park road crosses the south branch of the creek, was constructed between 1939 and 1940⁴ during the initial stages of the park's development. According to a former CCC worker, CCC laborers raised the bridge,⁵ thus numbering the bridge among many of the CCC-constructed structures of Prince William Forest Park. Judging by reports, the CCC technicians in the park were considered "excellent designers."⁶

In design, the South Branch Quantico Creek Bridge is indicative of park bridges of its period. Several stylistic considerations present during the 1930s and early 1940s affected park bridge construction, one being the availability of natural or "native" materials in parks under development. An original proposal for Chopawamsic RDA noted that quality building materials (such as stone, sand, gravel, rock and lumber) were plentiful and were "native and at hand without extra cost."⁷ The park architects and designers of the National Park Service at this time endorsed the appearance of bridges obtained from available materials: "a native material's look, always desirable in park bridges."⁸ The prevalent materials for bridges in national parks had been identified as stone and timber. The quality and quantity of building materials thus had more importance than the material's "nativeness."

By 1935, a certain style of architecture was utilized throughout national parks and forests. For lack of a more appropriate term, the style became loosely referred to as "rustic" architecture.⁹ Rustic architectural theory objected to open wood truss bridges because trusses were thought to confuse the design of the bridge and hinder its cooperation with the natural surroundings. Practical considerations also furthered the argument against this design: wood trusses were difficult to maintain and generally had a short life span. Aside from its use of timber, the South Branch Quantico Creek Bridge does not demonstrate much of the influence of the rustic style, but it

⁴ RG 79, Entry #153, April 10, 1939.

⁵ Interview with Joe Hebda, former CCC worker, June, 1988.

⁶ Sara Amy Leach, National Register Nomination: "ECW Architecture at Prince William Forest Park, 1933-42," March 1988, p. 14.

⁷ Branch of Recreation, Land Planning and State Cooperation (RG79), 501 Publicity File, Virginia.

⁸ Ibid., State Park File; Chopawamsic Demonstration Area.

⁹ Albert Good, the National Park Service architect of this period, defined the term: "Successfully handled, it is a style which, through the use of native materials in proper scale, and through avoidance of rigid, straight lines and over sophistication, gives the feeling of having been executed by pioneer craftsmen with limited hand tools. It thus achieves sympathy with natural surroundings and with the past." (National Park Service, Park Structures and Facilities, [Washington, D.C.:1935], pp. 3-4.)

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does manifest a basic tenet of rustic architecture: "it allowed the development of necessary park facilities without needless disruption of the natural scene."¹⁰

CCC architecture and engineering in Prince William Forest Park included camp buildings, administrative facilities, utility buildings, bridges, roads and trails. The South Branch Quantico Creek Bridge is sympathetic in design and construction to other examples of CCC architecture in the park. Aside from several possible influences discussed, the bridge most strongly reflects the utilitarian nature of CCC construction.

¹⁰ William Tweed et al, National Park Service Rustic Architecture: 1916-1942 (National Park Service, Western Regional Office, Division of Cultural Resource Management, 1977), p. 106.

BIBLIOGRAPHY

- Branch of Recreation, Land Planning and State Cooperation (RG 79). Reports on Recreational Demonstration Projects, (Entry 48).
- Branch of Recreation, Land Planning and State Cooperation (RG 79). State Park File, 1933-47 (Entry 37), Virginia.
- Cartographic and Architectural Branch (RG 79). Numbered Cartographic Records File, 1797-1958 (Entry 153), Virginia.
- Federal Highway Administration. "Bridge Safety Inspection Report: NPS Route 11 over South Branch Quantico Creek." Arlington, Va.: 1979.
- Good, Albert. Park and Recreation Structures, Part 1. Washington, D.C.: Govt. Printing Office, 1938.
- Interview (telephone) with Joe Hebda, former CCC worker, July, 1988.
- Leach, Sara Amy. National Register of Historic Places Nomination: "ECW Architecture at Prince William Forest Park, 1933-42." March, 1988.
- McEntee, James J. Now They Are Men. Washington D.C.: National Home Library Foundation, 1940.
- Muller, Herman J. "The Civilian Conservation Corps, 1933-42." Historical Bulletin. St. Louis: St. Louis University Press, March 1950.
- National Park Service. Park Structures and Facilities. Washington, D.C.: 1935.
- Parker, Patricia. The Hinterland: An Overview of the Prehistory and History of Prince William Forest Park, Virginia. Washington, D.C.: National Park Service, D.C.: NATIONAL CAPITAL REGION, 1985.
- Strickland, Susan Cary. Prince William Forest Park, An Administrative History. Washington, D.C.: History Division, National Park Service, 1986.
- Tweed, William C. et al. National Park Service Rustic Architecture: 1916-1942. National Park Service, Western Regional Office, Division of Cultural Resource Management, 1977.
- Washington Evening Star, July 24, 1916, p.2.